

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 September 2004 (10.09.2004)

PCT

(10) International Publication Number
WO 2004/076624 A2

- (51) International Patent Classification⁷: **C12N** (US). **NOGGLE, Scott, A.** [US/US]; 520 West 112th Street, Apt. 15B, New York, NY 10025 (US).
- (21) International Application Number: PCT/US2003/040762 (74) Agents: **WARREN, William, L.** et al.; Sutherland Asbill & Brennan LLP, 999 Peachtree Street, N.E., Atlanta, GA 30309-3996 (US).
- (22) International Filing Date: 18 December 2003 (18.12.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/434,786 18 December 2002 (18.12.2002) US (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicants (*for all designated States except US*): **BRE-SAGEN, INC.** [US/US]; 111 Riverbend Road, Athens, GA 30605 (US). **UNIVERSITY OF GEORGIA RE-SEARCH FOUNDATION, INC.** [US/US]; 624 Boyd Graduate Studies Research Center, Athens, GA 30602 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **MITALIPOVA, Maisam** [KZ/US]; 247 Jasmine Trail, Athens, GA 30606 (US). **LYONS, Ian** [AU/US]; 290 Barber Street, Athens, GA 30601 (US). **CONDIE, Brian** [US/US]; 110 Wood-lake Drive, Unit 18, Athens, GA 30606 (US). **ROBINS, Allan, J.** [AU/US]; 1050 Coday Bluff, Athens, GA 30606
- Published:
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: COMPOSITIONS AND METHODS FOR NEURAL CELL PRODUCTION AND STABILIZATION

(57) **Abstract.** The present invention provides compositions and methods for mammalian neural cell production, their stabilization and their proliferation. More particularly, the present invention provides cellular differentiation methods employing culturing the cells on a cell line or in cell culture and further contacting the cells with MEDII conditioned medium for the generation of stable mammalian neural cells from pluripotent mammalian stem cells. The invention further provides methods for the stabilization of a neural cell in culture comprising contacting the neural cell with MEDII conditioned medium. Preferably, the stabilized neural cell is a neural progenitor cell.

WO 2004/076624 A2